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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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08/19/2003

Kang Soo Seo

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EXAMINER

CHIO, TAT CHI

ART UNIT

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2621

MAIL DATE

DELIVERY MODE

01/27/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/642,635	SEO ET AL.	
	Examiner	Art Unit	
	TAT CHI CHIO	2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,5 and 7-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5 and 7-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/31/2008, 7/22/2008, 7/24/2008, and 10/29/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/22/2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 2, 4, 5, and 7-32 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4, 7-15, 17, 18, 20-24, 26, and 28-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawabe et al. (6,031,962) in view of Kikuchi et al. (5,870,523).

Consider claims 1, 20, and 22, Sawabe et al. teach a computer readable medium storing an executable data structure for managing reproduction of at least video

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data having multiple reproduction paths recorded on the computer readable medium by a reproduction device, comprising: a data area for storing stream files, the stream files including at least a portion of the video data having multiple reproduction paths (Fig. 5), the video data having multiple reproduction paths being divided into one or more interleaving units (Fig. 6), each interleaving unit associated with one of the reproduction paths (Fig. 6), each interleaving unit starting and ending with a reproduction path change point (Fig. 6), the interleaving units associated with different reproduction paths being interleaved in the data area (Fig. 7), and the video data in each interleaving unit being divided into one or more entry points (Fig. 7); but do not explicitly teach a playlist area for storing playlist files, the playlist file including at least one playitem, the playitem identifying a playing interval in a clip of the video data; and a clip information area for storing clip information files, the clip information files for managing reproduction of the video data having multiple reproduction paths by the reproduction device, the clip information file including an entry point map associated with a corresponding reproduction path of the multiple reproduction paths, each entry point map associated with a corresponding stream file and identifying the entry points in the video data for the associated reproduction path, the stream file, the clip information file, and the playlist file being logically separate.

Kikuchi teaches a playlist area for storing playlist files (Fig. 17), the playlist file including at least one playitem, the playitem identifying a playing interval in a clip of the video data (PGC playback time of Fig. 18); and a clip information area for storing clip information files (Fig. 25 and Fig. 26 store clip information files), the clip information files

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for managing reproduction of the video data having multiple reproduction paths by the reproduction device (Fig. 25 is the NAV pack of the VOB), the clip information file including an entry point map associated with a corresponding reproduction path of the multiple reproduction paths (Fig. 29, Fig. 30, and col. 27, lines 5-44), each entry point map associated with a corresponding stream file (Fig. 30 and Fig. 34) and identifying the entry points in the video data for the associated reproduction path, the stream file, the clip information file, and the playlist file being logically separate (Fig. 6, Fig. 25, and Fig. 26).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to separate the data area and the management area to efficiently organize the data in the recording medium.

Consider claims 2, 28, and 29, Sawabe et al. teach the computer readable medium, wherein the video data having multiple reproduction paths is divided into a plurality of clip files (Fig. 6), each clip file including video data associated with one of the multiple reproduction paths (Fig. 6), and each clip file divided into one or more of the interleaving units (Fig. 6).

Consider claims 4, 24, and 26, Sawabe et al. teach the computer readable medium, wherein each interleaved unit in at least one clip file includes a same number of entry points (Fig. 7).

Consider claim 7, Sawabe et al. teach the computer readable medium, wherein each entry point map indicates which of the identified entry points is a last entry point in an interleaved unit (Fig. 6 and Fig. 7).

Consider claim 8, Sawabe et al. teach the computer readable medium, wherein each entry point map indicates which of the identified entry points is a first entry point in an interleaved unit (Fig. 6 and Fig. 7).

Consider claim 9, Sawabe et al. teach the computer readable medium, wherein the entry point maps are aligned in time (Fig. 6 and Fig. 7).

Consider claim 10, Sawabe et al. teach the computer readable medium, further comprising: the management information includes an information file associated with each clip file, each information file including the at least one entry point map for the associated clip file, each entry point map identifying entry points in the clip file (Fig. 6 and Fig. 7).

Consider claim 11, Sawabe et al. teach the computer readable medium, wherein each entry point map indicates which of the identified entry points is a last entry point in an interleaved unit (Fig. 6 and Fig. 7).

Consider claim 12, Sawabe et al. teach the computer readable medium, wherein each entry point map indicates which of the identified entry points is a first entry point in an interleaved unit (Fig. 6 and Fig. 7).

Consider claim 13, Sawabe et al. teach the computer readable medium, wherein the entry point maps are aligned in time (Fig. 6 and Fig. 7).

Consider claims 14, 17, 21, and 23, Sawabe et al. and Kikuchi et al. teach a computer readable medium storing a an executable data structure for managing reproduction of at least video data having multiple reproduction paths recorded on the computer readable medium by a reproduction device, comprising: a data area for

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storing a plurality of stream files (Fig. 6 of Sawabe et al.), each stream file including video data associated with one of the multiple reproduction paths (Fig. 6 of Sawabe et al.), each stream file divided into entry points of video data (Fig. 7 of Sawabe et al.), the entry points in each stream file being grouped into one or more interleaving units (Fig. 7 of Sawabe et al.), and the plurality of stream files being interleaved in the data area on a interleaving unit basis (Fig. 7 of Sawabe et al.); a playlist area for storing playlist files (Fig. 17), the playlist file including at least one playitem, the playitem identifying a playing interval in a clip of the video data (PGC playback time of Fig. 18); and a clip information area for storing clip information files (Fig. 25 and Fig. 26 store clip information files), the clip information files for managing reproduction of the video data having multiple reproduction paths by the reproduction device (Fig. 25 is the NAV pack of the VOB), the clip information file including an entry point map associated with a corresponding reproduction path of the multiple reproduction paths (Fig. 29, Fig. 30, and col. 27, lines 5-44), each entry point map associated with a corresponding stream file (Fig. 30 and Fig. 34) and identifying the entry points in the video data for the associated reproduction path, the stream file, the clip information file, and the playlist file being logically separate (Fig. 6, Fig. 25, and Fig. 26).

Consider claim 15, Sawabe et al. teach the computer readable medium, wherein each interleaved unit in at least one clip file includes a same number of entry points (Fig. 7).

Consider claim 18, Sawabe et al. teach the computer readable medium, wherein the number of entry points is fixed for at least interleaving units associated with a same reproduction path (Fig. 7).

Consider claim 30, Sawabe et al. teach the apparatus further comprising: an encoder configured to encode the video data having multiple reproduction paths (72 of Fig. 11).

3. Claims 5, 16, 19, 25, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawabe et al. (6,031,962) in view of Kikuchi et al. (5,870,523) as applied to claims 1, 14, 17, 22, and 23 above, and further in view of Sugimoto et al. (US 6, 470,140 B1).

Consider claims 5, 25, and 27, Sawabe et al. and Kikuchi et al. teach all the limitations in claims 1 and 3 but fails to explicitly teach the computer readable medium, wherein at least two interleaved units in at least one clip file have a different number of entry points.

Sugimoto et al. teach the recording medium, wherein at least two interleaved units in at least one clip file have a different number of entry points (Fig. 44). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate different number of entry points to efficiently utilize the random access capability of disc media.

Consider claim 16, Sugimoto et al. teach the computer readable medium, wherein at least two interleaved units in at least one clip file have a different number of entry points (Fig. 44).

Consider claim 19, Sugimoto et al. teach the computer readable medium, wherein the number of entry points varies for at least interleaving units associated with a same reproduction path (Fig. 44).

4. Claims 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawabe et al. (6,031,962) in view of Kikuchi et al. (5,870,523) as applied to claim 22 above, and further in view of Kato (US 7,106,946 B1).

Consider claim 31, Sawabe et al. and Kikuchi et al. teach all the limitations in claim 22 but do not explicitly teach the apparatus further comprising: a source packetizer configured to packetize the video data.

Kato teaches the apparatus further comprising: a source packetizer configured to packetize the video data (col. 6, lines 15-20). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to packetize the video data to facilitate reproduction with high responsiveness.

Consider claim 32, Kato further teaches the apparatus further comprising: a source de-packetizer configured to de-packetize a packet of the video data (col. 9, lines 30-35).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAT CHI CHIO whose telephone number is (571)272-

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9563. The examiner can normally be reached on Monday - Thursday 9:00 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on (571)-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. C. C./
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621